



Friends of Science in Medicine

Newsletter 20 - 23 November 2018

WHAT'S NEW SINCE OUR LAST NEWSLETTER?

The power of one!

Executive Member, Professor Marcello Costa, has been awarded a 'Lifetime Achievement Award' for advancing "the entire field and such advances have been recognised by all the societies of the world Federation of Neurogastroenterology and Motility". This is a notable achievement for a long and stellar career in creating and contributing to neurogastroenterology, a field that seeks to understand the neurological underpinnings of various gastroenterological diseases.



Marcello Costa

Devoting his academic life to unravelling the complexities of the nervous system, Professor Costa is a researcher and media expert in the fields of autonomic nerves, brain, gastroenterology and gastrointestinal physiology. His early work was pivotal in introducing the new discipline of neuroscience to Australia. He continues to hold a personal Chair in Neurophysiology at Flinders University, the first such chair in Australia.

Hundreds of his scientific papers, published both in Australia and in international journals, continue to inspire new generations of medical, health, psychology and science students.

However, his work and interest in public education has not just pushed the boundaries of our knowledge and understanding of neuroscience, but also extends to challenging pre-scientific theories for the way our bodies work. He remains particularly concerned about Government endorsement, through taxpayer funded university courses and private health funds rebates, of alternative medicine practitioners who target new families and other vulnerable patients. Examples of these are chiropractors who claim that spinal manipulation is a substitute for vaccination and Traditional Chinese Medicine practitioners who claim they can diagnose cancer and other serious diseases and cure them with acupuncture.



In 2011, he was one of the five co-founders of Friends of Science in Medicine (FSM), writing the principles and commitments for FSM, and he represents FSM on health issues relating to the brain and spine.

Inside this Issue:

What's New Since Our Last Newsletter?	1	Pharmacy & CAM (column)	6
FSM Executive News	2	Cancer & CAM (column)	7
FSM Media Release	2	TGA & CAM (column)	8
Nursing & Midwifery Board—Continuing to ignore ethical standards & FSM complaints	3	Special Report from Edzard Ernst—Emotional Freedom Technique—a combination of 2 types of BS	9
Letter from Community GP	4	Recent Publications by our Friends	10
Chinese Medicine & Chiropractic Boards	5	Join FSM	11



www.scienceinmedicine.org.au



scienceinmedicine@bigpond.com



'Follow' us on Twitter @FriendsofSciMed



'Like' our Facebook Page



PO Box 631, Morayfield, QLD, 4506



FSM EXECUTIVE NEWS

FSM in the Media

Universal Medicine, midwives and Chemist Warehouse are some of the topics FSM was interviewed or published about since the last newsletter.

Here is a selection of news items:

- * [Doctor claims midwives are putting babies' lives at risk with their alternative methods and 'dark arts'](#)
- * [Midwives endangering babies with 'dark arts': Doctor](#)
- * [Ideological battlefield of the labour ward](#)
- * [Science or Snake Oil: do 'rescue remedies' ease stress?](#)
- * [Calls for Chemist Warehouse to be fined \\$2 million](#)
- * [Trial told of 'bizarre sexual manipulation' tweet](#)
- * ['Consumers need protecting from UM': Health experts](#)



A win for the advocacy of FSM!

Media Release

Australia gets immunised against pseudoscience

6 November 2018

The [government's decision to withdraw financial support](#) for a host of 'natural' therapies has been greeted with acclaim by one of the nation's foremost bodies arguing for an end to government-sponsored pseudoscience.

Friends of Science in Medicine (FSM) has campaigned for seven years for the government to stop subsidising supposed health treatments that its own principal advisory body, the National Health and Medical Research Council (NHMRC), has declared ineffective.

A former report by the NHMRC, commissioned by government itself, found no evidence for clinical effectiveness for any of the 17 most common of these 'alternative' treatments (Homeopathy, Reiki, Iridology, Reflexology etc).

"This move is important in our efforts to use precious health dollars wisely," said Professor John Dwyer, President of FSM, "but even more important is the clear message to Australians that these modalities will not benefit their health."

"The decision should also send a message to the private health industry which is struggling to stop Australians deserting their product," argues Monash's Professor Ken Harvey. "With Australians burdened with 30 billion dollars a year of out-of-pocket expenses for their health care, the savings that would follow if industry followed the government's lead could be passed onto consumers as lower premiums."

FSM argues that, with Health literacy in Australia hovering around 40% of the population, it is easy for pseudoscientific practitioners to make misleading claims about worthless or even harmful treatments.

"It is concerning that, in this most scientific of ages, consumers are poorly protected from so many ineffective, pseudoscientific and even anti-scientific 'alternative' modalities and such misleading information," said Adelaide's science communicator, Professor Rob Morrison, Vice-President of FSM. "Government should build on this positive step by asking more from the regulators that they themselves have established to protect consumers from health care fraud."



The Nursing and Midwifery Board

By Professor Alastair MacLennan

Continuing to ignore ethical standards and FSM complaints



Prof Alastair MacLennan

On behalf of FSM I wrote firstly to [The Australian College of Midwives](#) expressing concern that they were offering continuing education points to midwives who attend and pay for courses in reflexology and acupuncture. These treatments in pregnancy and labour have no scientific credibility and may be dangerous when they distract from evidence-based therapies. In particular, I expressed concern where midwives used modalities such as moxibustion (burning mugwort between toes), acupressure, reflexology or advocated referral for chiropractic manipulation for version of breech presentations during pregnancy.

These interventions have no scientific evidence of efficacy and may be applied too early in pregnancy e.g. before 38 weeks gestation when spontaneous version is common. Of most concern is that breech version by any technique is potentially dangerous. There are many contraindications and complications e.g. a scarred uterus may rupture, membrane rupture and cord prolapse with a footling breech, preterm labour may commence, cord entanglement and stillbirth, multiple pregnancy, and isoimmunisation if the mother is Rhesus Negative. These complications of breech version mandate that, when appropriate close to term, version should be attempted by an experienced obstetrician with ready access to emergency caesarean facilities, under ultrasound guidance and with electronic fetal heart rate monitoring.



The College of Midwives dismissed our concern and has not removed its endorsement and CPD points for these courses which appear to teach these unproven practices rather than alert the course attendees to their lack of efficacy and dangers.



A similar polite letter of concern about these dubious courses, practices and college endorsement was sent to the [Nursing and Midwifery Board of Australia](#). The chair, A/Prof [Lynette Cusack](#) replied that Continuing

Professional Development (CPD) courses were necessary and did not address the ethics, advisability, dangers or lack of scientific evidence for such interventions or the teaching of them.

When this disappointing response [was aired in the media](#) it was interesting and sad to see the midwifery social media sites broadly condemning the whistle blower but hardly questioning the inappropriateness of the alternative unproven therapies, whereas [comments on MJA Insight](#), which were mostly from doctors, voiced dismay that such alternative practices were infiltrating midwifery practice without an evidence base, ethics approval or hospital administrative oversight and audit.



This disparity in rules for medical research and practice and the lack of rules for midwifery 'research' and practice is frightening and will end in patient tragedy and a likely lack of responsibility accepted by midwifery administration.

Emeritus Professor Alastair MacLennan AO, MB ChB, MD, FRCOG, FRANZCOG
Vice President Friends of Science in Medicine
The Robinson Research Institute



MIDWIFERY AND MUGWORTS

Letter from a community GP



Dr Thomas Lyons

I have read your reaction to the [Mugwort practice](#).

You will never get traction with them. They apply the concept of tribal belief systems to establish their identity as nurses and midwives and to distinguish themselves from doctors.

They take pride in having beliefs and practices that you find objectionable. Journalists (who neither speak nor understand science) are satisfied that the concept of belief system should prevail.

I have recently been speaking with two mothers who experienced birthing complications for their babies when midwives refused to involve medical staff. This has prompted me to bring some matters to your attention and ask for your advice.

I worked as a nurse through my medical training. My brother is a Registered Nurse (RN). I have often heard from nursing students, including patients who became nursing students, that nursing students are taught in lectures by nursing lecturers that medical graduates do not care as much for patients as nursing graduates, doctors cannot be trusted, nurses must stand up for patients against doctors, nurses should not feel obliged to follow a doctors instructions, nurses should not feel the need to involve a doctor in a complex matter that they feel they can handle etc.

I was running an emergency department at night when a child was brought by her drunken father with injuries he sustained when the father threw a chair at the mother. I requested that the nurses call the police. 30 minutes later the police had not arrived. I was then advised that the nurses had unilaterally decided that this was not necessary because he had thrown the chair at the mother and not the child.



A toddler was in a paediatric unit with Transient Erythroblastopaenia of Childhood (TEC). The parents wanted to donate their own blood. The paediatricians advised against this because of possible complications later in life. The nurse spoke to the parents and advised against trusting the doctors, suggesting they contact the Red Cross to organize to transfusion. When we, the paediatric staff, returned parents and child had vanished. When we brought this matter to the attention of the Nurse Unit Manager, she congratulated the nurse for having the courage of her convictions and standing up for the patient against the doctors.

This whole bigoted process is bizarre in this era of political correctness. Is nursing science more a matter of indoctrination and identity politics than science?

I feel the genesis of this tension and conflict was the historical perception of gender politics between doctors and RNs. 50 years ago all doctors were male and all RNs were female. Is this a conflation of gender politics of previous generations?

I regard including such views in a lecture as unethical and they certainly open the door to avoidable harm to vulnerable patients.

Further it is a form of hate speech.

[Dr Thomas Lyons MBBS DCh](#)

Do you have a similar story to share? Why not let FSM publish it?



Chinese Medicine Board and Chiropractic Board

By Professor John Dwyer

Update on our advocacy with AHPRA.



Prof John Dwyer

Chiropractic Board of Australia: FSM wrote to the Chair, Chiropractic Board of Australia, about the continued advocacy by many of their registrants of 'Vitalistic Chiropractic' which endorses the original theory of their founder re spinal 'subluxations' disturbing a vital flow of energy which causes many diseases! The Board is supporting this nonsense by allowing Continuing Professional Development (CPD) points for courses based on this concept. We emphasised that acceptance of this concept provides an excuse for practitioners to markedly expand their scope of practice.



We cited several examples including '[Philosophy Symposium](#)', a course held in Melbourne that was focussed on advocacy for vitalistic chiropractic featuring a high profile American chiropractor from the discredited Sherman College in the US

which is a centre for vitalistic chiropractic.

Chinese Medicine Board of Australia: FSM would not be concerned about the teaching of traditional, if disproven concepts of alternative medicine, if such learning was for historical interest only. However, hundreds of Chinese Medicine Board of Australia (CMBA) registrants are promoting their ability to diagnose disease using traditional antiscientific concepts. Example are the reliance on tongue and pulse examinations for diagnosis. Unacceptably these examinations are included in the compulsory pseudoscience-based content of Traditional Chinese Medicine (TCM) degrees. FSM wrote to the CMBA providing examples of relevant online course materials, but only received a generic response to our letter which failed to address our concerns.



The Board claims that these degree courses have "undergone the same rigorous process as all education providers and their programs of study that apply for accreditation" because the Chinese Medicine Accreditation Committee) had undertaken "wide-ranging stakeholder consultation when developing its accreditation process and accreditation standards".

In a second letter we asked the Chair of the Board if he personally believed that (1) there are 40 separate areas of a tongue that can provide specific clinical information, (2) feeling pulsations in three positions on a radial artery can provide diagnostic information (3) "cupping", also included in TCM courses, provides effective treatment for any disease? As yet no reply.

We also requested that the Board addresses the recently published study that concluded the Acupuncture provides [no increase in the likelihood that in vitro fertility treatment](#) will be successful.

As hundreds of TCM websites make this claim, we suggested that the Board have their "examples of unacceptable advertising", include claims re fertility enhancement with acupuncture.

<https://www.chinesemedicineboard.gov.au/news/newsletters/june-2018.aspx#chair>



Professor John Dwyer AO. PhD, FRACP, FRCPI, Doc Uni (Hon) ACU. Emeritus Professor of Medicine and President of FSM



Pharmacy & CAM

Column by Ian Carr.

Given that "fake news" abounds, we FSMers have a mighty job ahead.

As a community pharmacist (counselling science-based Medicine), I offer some thoughts on our populace's science literacy.

I have been assured that:

- * colloidal silver will cure dogs' mange;
- * a bloke back of Barrington has cured his cancer (didn't reach the Journals!);
- * half a Bex APC powder turned a work-shy kelpie into a herding champion;
- * Black Salve cures skin (and other) cancers. (Madam, have you Googled the pictures of facial disfigurement?)



Ian Carr

I suggest a thesis, "Modern medical authorities: where the hell do they get these ideas?"

Today's most influential medical experts are:

1. Haranguing, bullying, authoritative and motivating *Alan Jones*. As almost all his audience have some osteoarthritis, just one AJ anecdote will sell bottles of pain relief spray.
2. *A Current Affair*. Arthritis cures, after dodgy builders, are their favourite topic – more arthritis cure stories, because dodgy builders don't pay for advertising.
3. The Actors. 'Dr' Jenny McCarthy with her sterling anti-vaccination work. Nicole Kidman, for prancing through parkland spruiking Suisse vitamins. Has she quit her addiction to cigarettes? The vitamins - if she takes them – might increase her cancer risk.
4. Those classified ads in Seniors' papers, selling a product of historic interest by eliciting a few memories from those once dosed with castor oil.
5. The neighbour/bloke at bowls. Many patients decline their GP's advice on important medications ("I've never been one for taking pills"). However, an anecdote from an acquaintance – often second- or third- hand – will deliver that same non-compliant patient with a scrawled, misspelt note recommending something as difficult to find as the evidence for its purported efficacy.
6. Dr Google. Potentially the world's most dangerous doctor. Famous for referring people with real and sometimes desperate health problems to advertising psychopaths, quacks, weirdos, and pseudoscientists.
7. The Supplement Industry and its *de facto* spouse, the Therapeutic Goods Administration. Public policy is driven by the TGA's *laissez-faire* approach, based on the (unproven) assertion that vitamins and supplements are harmless. Not only an open invitation to fraud, but dangerous: "Your kids are probably malnourished. Give them some of these vitamin gummies."

Topic of the Week: Probiotics and Evidence

And probiotics. In short: *some* evidence that they *might* help tummy rumbles. No evidence of benefit in healthy people – therefore NOT A SUPPLEMENT. Not to be sold as an add-on to antibiotic prescriptions. A probiotic dose of any kind, compared to our gut microbiome population, is but a drop in the ocean.



Far more positive and exciting is the research into faecal transplants for *C. difficile* infection. Once the TGA clears it, we can look forward to the supplement-makers actually selling us sh*t.

Ian J Carr, BPharm MPS, is the Pharmacist/Proprietor at Saxbys Pharmacy, Taree, NSW

Cancer & CAM

Column by Dr Pallave Dasari



Dr Pallave Dasari

Our increasing longevity means that cancer rates are rising. Half of us will have cancer by the age of 85. While new drugs and improved medical treatment have increased five-year survival from cancer to 69%, it remains our second commonest cause of death.

In this environment, many vulnerable people with cancer will seek any option to improve survival, especially when offered confronting treatments such as surgery or chemotherapy. Into this space come medically unqualified people offering untested treatments with dubious rationales.

One is “to boost the immune system” suggesting that a weak immune system leads to cancer. Recommended ‘natural’ interventions to boost the immune system can involve drinking litres of vegetable juices for antioxidants, eating particular foods (cruciferous vegetable, garlic or turmeric), or consuming vitamin supplements.

There is little evidence of efficacy for any of these.

But this does not stop alternative practitioners from touting these ‘treatments’.

Claims of natural cures ignore cancers’ complexity. Cancer is a disease of uncontrolled cell proliferation, and there are hundreds of types. The types are determined by genetic drivers, the type of cell (breast, lung, liver etc), the grade of cancer (how the cancer cell looks), and the stage (localised or metastatic). Each of those factors affects decisions on surgery, chemotherapy, radiation therapy and immunotherapy. Individualised treatment plans are developed to address the complexity of each individual’s cancer.



Immunotherapy is the most recent pillar of treatment. Immunotherapy does not make vague claims about “boosting the immune system”. Instead, medications based on immune molecules or immune cells are engineered to target genetic drivers of cancer to eliminate tumours. An example is Herceptin, an antibody-based medication which targets HER2, a driver of breast cancer. This has dramatically increased survival rates to 85% in women with HER2-positive breast cancer.

New immunotherapies are being developed against other drivers of cancers. Checkpoint inhibitor therapies neutralise the ability of cancers to escape immune surveillance and thus allow the killing of cancers.



Medicine has a science-based approach to cancer treatment, with strong supporting evidence. Alternative interventions do not have a science-based approach and, instead, fall onto the “What’s natural is good” fallacy to promote questionable approaches, resulting in negative outcomes for patients who reject medicines.

Nevertheless, many patients are attracted to the idea of treating their cancer ‘naturally’. And our current sociological environment promotes distrust of all kinds of experts and dismissal of their evidence.

I have no solutions, only hard questions. How do we in science and medicine reach out to be trusted by the public? Evidence and rationale do not work. In a complex world, modern medicine cannot offer the reassurance of certainty (falsely) offered by alternative medicine; this debate is values-based.

Dr Pallave Dasari, BMedSc, PhD, MSPPM is a Senior Postdoctoral Fellow, Discipline of Surgery, The Queen Elizabeth Hospital and The Robinson Institute, The University of Adelaide, SA.



Therapeutic Goods Administration (TGA) and CAM

Column by Mal Vickers

Illegal Advertising Swept Away!



Mal Vickers

Let's face it, for a long time we've been frustrated by shonky advertising of complementary medicines: homeopathy, foot detox pads, Vita-Gummies - the list is long.

The old system for handling complaints of advertisements for complementary medicines had its problems. The main issue was that the old [Complaints Resolution Panel](#) (CRP), now defunct, had no powers of enforcement.

The CRP published its [determinations in considerable detail](#), highlighting the company name behind the product, the disputed advertising claim, the lack of evidence to support the claim, determining which advertising codes had been breached and so on. Regardless, companies flogging their nonsense often chose to ignore the CRP without consequence.



When it was mooted that the role of accepting complaints about therapeutic goods advertising be handed over to the TGA, the public begrudgingly accepted it.

I've explored the findings of the CRP, I calculated that during the final four years of operation, (July 2014 to June 2018) there were a total of 3,052 individual breaches.

For each justified complaint in that period (n=454) the CRP found that 85% of the complaints about advertisements were *misleading* (breach of code 4(2)(c)). It also found 81% were *unverifiable* (breach of code 4(1)(b)) and 78% had *exaggeration of efficacy*, (breach of code 4(2)(a)).

**Department of Health
Therapeutic Goods Administration**

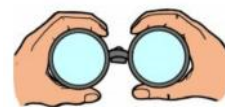
With the old CRP system, at least we knew what the problems were. [Advertising laws](#) were being breached and often, but we also knew that almost nothing was being

done about it. Under the TGA's current system, [very few details are published](#). Generally, it's impossible to establish where an advertiser fails to comply with the law and whether they have remedied the situation. The new TGA complaints system lacks the transparency of the old system, unfortunately, advertising that breaches the law is now being swept under the carpet.

Mal Vickers, Researcher, Monash University School of Public Health

SPOTTERS WANTED!

Want to be a 'Public Health Activist'? The 'Whack-a-mole (WAM)' project needs your help! Developing university students in critical thinking, research and in understanding our regulatory system, this project needs more advertisements that may be making questionable therapeutic claims.



If you see any therapeutic goods or services making outrageous claims - don't get angry, get emailing! Send the links or copies of advertisements (and where and when they were published) to our CEO, at scienceinmedicine@bigpond.com.

'WIKILEAKS' FOR DODGY PHARMACY PRACTICES

Attention pharmacy worker! To gather stories and data about how Complementary Medicines are being managed in Australian pharmacies today, FSM Pharmacy Facilitator, Ian Carr, has set up the email address pharmacy.CAM.leaks@gmail.com, where you can share your stories

Contact us





A SPECIAL REPORT FROM EDZARD ERNST

Emotional Freedom Technique, a combination of two types of BS

Often referred to as “Psychological acupressure”, the Emotional Freedom Technique (EFT) works by *releasing blockages within the energy system which are the source of emotional intensity and discomfort. These blockages in our energy system, in addition to challenging us emotionally, often lead to limiting beliefs and behaviours and an inability to live life harmoniously. Resulting symptoms are either emotional and/or physical and include lack of confidence and self esteem, feeling stuck anxious or depressed, or the emergence of compulsive and addictive behaviours. It is also now finally widely accepted that emotional disharmony is a key factor in physical symptoms and dis-ease and for this reason these techniques are being extensively used on physical issues, including chronic illness with often astounding results. As such these techniques are being accepted more and more in medical and psychiatric circles as well as in the range of psychotherapies and healing disciplines.*



END OF QUOTE

If you ask me, this sounds as though EFT combines pseudo-psychological with acupuncture-BS.

But I may be wrong.

What does the evidence tell us?

A systematic review included 14 RCTs of EFT with a total of 658 patients. The pre-post effect size for the EFT treatment group was 1.23 (95% confidence interval, 0.82-1.64; $p < 0.001$), whereas the effect size for combined controls was 0.41 (95% confidence interval, 0.17-0.67; $p = 0.001$). Emotional freedom technique treatment demonstrated a significant decrease in anxiety scores, even when accounting for the effect size of control treatment. However, there were too few data available comparing EFT to standard-of-care treatments such as cognitive behavioural therapy, and further research is needed to establish the relative efficacy of EFT to established protocols. Meta-analyses indicate large effect sizes for posttraumatic stress disorder, depression, and anxiety; however, treatment effects may be due to components EFT shares with other therapies.

Another, more recent analysis of six studies reviewed whether EFTs acupressure component was an active ingredient. This meta-analysis indicated that the acupressure component was an active ingredient and outcomes were not due solely to placebo, nonspecific effects of any therapy, or non-acupressure components.

From these and other reviews, one could easily get the impression that my above-mentioned suspicion is erroneous and EFT is an effective therapy. But I still do have my doubts.

These reviews conveniently forget to mention that the primary studies tend to be of poor or even very poor quality. The most common flaws include tiny sample sizes, wrong statistical approach, lack of blinding, lack of control of placebo and other nonspecific effects. Reviews of such studies thus turn out to be a confirmation of the ‘rubbish in, rubbish out’ principle: any summary of flawed studies are likely to produce a flawed result.

Until I have good quality trials to convince me otherwise, EFT is in my view:

1. implausible and
2. not of proven effectiveness for any condition.



RECENT RELEVANT PUBLICATIONS BY FRIENDS

MJA Insight

- * Sue Ieraci [Ideological battlefield of the labour ward](#)

'The Bitter Pill' - Australasian Science

- * Lyndal Byford [Forget Fake News: Is PR Hype the Big Problem in Science?](#)
- * John McLennan [The MINDD Foundation is Built on Shaky Ground](#)

Edzard Ernst

- * [Spain no longer tolerates quackery](#)
- * [China's State Council to sacrifice tigers and rhinos in the name of TCM-quackery](#)
- * [Chiropractic = a therapy in search for an indication](#)
- * [Harmful effects of chiropractic on functioning and well-being of neck- and back-pain patients?](#)

The Conversation

- * [Science or snakeoil: Do hangover cures really work?](#)

Australian Skeptics

- * [A bad day for Sarah](#)

Forbes

- * Steven Salzberg: [WHO Endorses Traditional Chinese Medicine. Expect Deaths To Rise](#)
- * Steven Salzberg: [Poison Oak To Treat Pain? I Don't Think So](#)

Science-based Medicine

- * [Billions on herbal remedies – and for what?](#)
- * [Alkaline Water Surges Despite Lack of Evidence](#)
- * [A Call for Caution on Antioxidant Supplementation](#)
- * [Drugs in your supplements](#)
- * [AAFP Promotes Acupuncture](#)
- * [Debunking the magical power of the placebo effect for chronic pain \(yet again\)](#)

Respectful Insolence (David Gorski)

- * [Belief in alternative cancer cures: We have a lot of work to do to combat quackery](#)

HealthWatch Newsletter (UK)

- * [Issue 108, Autumn 2018](#)

Good Thinking Society (UK)

- * [Covering Alternative Cancer Stories](#)

Frank Van Der Kooy

- * [Sydney medical practice sued over 'Slapping Therapy' death of diabetic boy – the first crack in this unholy alliance?](#)

Skeptical Raptor

- * [Medical exemptions for vaccines after California SB277 – article review](#)
- * [Children's Health Defense anti-vaccine attack on Paul Offit – this again](#)



We would like to ask our supporters
to alert their friends to the important role being played by

Friends of Science in Medicine

and to encourage them to join as a Friend or add their support in other ways.

You can contact us and new supporters can join us at no cost at:

Email

scienceinmedicine@bigpond.com

Web

<http://www.scienceinmedicine.org.au>

or follow us on Facebook or Twitter

Facebook

<https://www.facebook.com/FriendsOfScienceInMedicine/>

Twitter

<https://twitter.com/friendsofscimed>
